

## CLAIMS

1    1. In a wireless communication system in which an electronic device  
2    processes signals received from at least one base station, a method for  
3    processing signal, comprising the acts of:  
4       receiving a current frame signal, wherein said current frame signal is  
5       received substantially during reception of a current frame of the wireless  
6       communication system;  
7       storing said current frame signal in a memory to be evaluated substantially  
8       during reception of a next frame of the wireless communication system;  
9       determining, substantially simultaneously to storing said current frame  
10      signal, if a selected data packet is contained within a previous frame signal  
11      using a previous frame signaling information, wherein said previous frame  
12      signal was stored in said memory and said frame signaling information  
13      was extracted substantially during reception of a previous frame of the  
14      communication system; and  
15      processing, substantially simultaneously to storing said current frame  
16      signal, said previous frame signal substantially during reception of said  
17      current frame, if determined that said previous frame signal contained said  
18      data packet for the electronic device.  
1    2. The method as claimed in claim 1, wherein the act of processing said  
2    previous frame signal comprises an act of replaying, substantially during  
3    reception of said current frame, said previous frame signal stored in said  
4    memory.  
1    3. The method as claimed in claim 1, wherein the act of processing said  
2    previous frame signal comprises an act of de-spreading said previous  
3    frame signal using said previous frame signaling information to retrieve  
4    said data packet.

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- 1        4. The method as claimed in claim 1, wherein the act of receiving said  
2           current frame signal comprises an act of receiving at least one control  
3           channel signal, at least one supplemental channel signal and at least one  
4           dedicated channel signal substantially during reception of said current  
5           frame.
  
- 1        5. The method as claimed in claim 4, further comprises an act of decoding  
2           said at least one control channel signal by a control channel signal  
3           decoder during reception of said current frame.
  
- 1        6. The method as claimed in claim 1, wherein the act of processing said  
2           previous frame signal comprises an act of de-spreading said previous  
3           frame signal, wherein said previous frame signal comprises at least one  
4           supplemental channel signal.
  
- 1        7. The method as claimed in claim 6, wherein the act of processing said  
2           previous frame signal comprises an act of decoding said at least one  
3           supplemental channel signal during said current frame.
  
- 1        8. The method as claimed in claim 1, wherein the act of processing said  
2           previous frame signal comprises an act of de-spreading said previous  
3           frame signal, wherein said previous frame signal comprises at least one  
4           control channel signal and at least one supplemental channel signal.
  
- 1        9. The method as claimed in claim 8, wherein the act of processing said  
2           previous frame signal comprises an act of decoding said at least one  
3           control channel signal and thereafter decoding said at least one  
4           supplemental channel signal.
  
- 1        10. An electronic device operable in a wireless communication system in  
2           which communication signals are communicated between a base station  
3           and the electronic device, the electronic device comprising:  
4              an analog to digital (A2D) converter, said A2D converter for receiving and  
5              converting a signal to generate a current frame signal;

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6        a memory for receiving said current frame signal and storing said current  
7        frame signal in said memory;

8        a rake receiver for receiving said current frame signal and extracting a  
9        current frame signaling information from said current frame signal; and

10      a master controller coupled to said memory, said master controller for  
11     processing a previous frame signal, wherein said previous frame signal is  
12     stored in memory during reception of a previous frame; said master further  
13     for using a previous frame signaling information, wherein said previous  
14     frame signaling information extracted during reception of said previous  
15     frame, to determine if processing said previous frame signal is required.

1        11. The electronic device as claimed in claim 10, wherein said current frame  
2        signal comprises at least one control channel signal, at least one  
3        supplemental channel signal and at least one dedicated channel signal.

1        12. The electronic device as claimed in claim 11, further comprises:

2        a control channel signal decoder for decoding said at least one control  
3        channel signal of said current frame signal during reception of said current  
4        frame.

1        13. The electronic device as claimed in claim 12, wherein

2        said previous frame signal comprises at least one supplemental channel  
3        signal; and

4        said master controller further for decoding said at least one supplemental  
5        channel signal of said previous frame signal using said previous frame  
6        signaling information, wherein said previous frame signaling information  
7        having Walsh code information.

1        14. The electronic device as claimed in claim 13, wherein said master  
2        controller for determining if a selected data packet was received on said at

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3       least one supplemental channel signal of said previous frame signal, prior  
4       to decoding said at least one supplemental channel signal.

1       15. The electronic device as claimed in claim 10, wherein said previous frame  
2       signal comprises at least one control channel signal, at least one  
3       supplemental channel signal and at least one dedicated channel signal.

1       16. The electronic device as claimed in claim 15, wherein said master  
2       controller further for decoding said at least one control channel signal and  
3       thereafter decoding said at least one supplemental channel signal of said  
4       previous frame signal.

1       17. The electronic device as claimed in claim 10, wherein said memory  
2       comprises a first buffer and a second buffer.

1       18. The electronic device as claimed in claim 17, wherein said master  
2       controller comprises logic to control the use of said first buffer and said  
3       second buffer.

1       19. In a wireless communication system in which an electronic device  
2       processes signals received from at least one base station, the electronic  
3       device comprising:  
4           a front end for receiving a current frame signal, wherein said current frame  
5       signal is received substantially during reception of a current frame of the  
6       wireless communication system;  
7           a memory for storing said current frame signal, said memory for further  
8       storing a previous frame signal, wherein said previous frame signal stored  
9       substantially during reception of a previous frame of the communication  
10      system; and  
11      a controller for determining, substantially simultaneously to storing said  
12     current frame signal, if a selected data packet is contained within said  
13     previous frame signal, using a previous frame signaling information,  
14     wherein said frame signaling information was extracted substantially

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15       during reception of a previous frame of the communication system; said  
16       controller further for processing during reception of said current frame,  
17       substantially simultaneously to storing said current frame signal, said  
18       previous frame signal if determined that said previous frame signal  
19       contained said data packet for the electronic device.

1       20. The electronic device as claimed in claim 19, said current frame signal  
2       comprises a Walsh code assignments, at least one dedicated channel  
3       signal, at least one control channel signal and at least one supplement  
4       channel signal.

1       21. The electronic device as claimed in claim 20, further comprises a control  
2       channel signal decoder for decoding said at least one control channel  
3       signal of said current frame signal.

1       22. The electronic device as claimed in claim 21, wherein said controller for  
2       processing said at least one supplemental channel signal of said previous  
3       frame signal substantially during reception of current frame.

1       23. In a wireless communication system in which an electronic device  
2       processes signals received from at least one base station, a method for  
3       processing signal, comprising the acts of:

4       receiving a current frame signal, wherein said current frame signal is  
5       received substantially during reception of a current frame of the wireless  
6       communication system;

7       storing said current frame signal in a memory;

8       retrieving, substantially simultaneously to storing said current frame signal,  
9       a previous frame signaling information, said previous frame signaling  
10      information extracted during the reception of a previous frame of the  
11      wireless communication system;

12      determining, substantially simultaneously to storing said current frame  
13      signal, if a selected data packet is contained within a previous frame signal

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14       using said previous frame signaling information, wherein said previous  
15      frame signal was stored in said memory substantially during reception of  
16      said previous frame of the communication system; and

17       processing, substantially simultaneously to storing said current frame  
18      signal and substantially during reception of said current frame, said  
19      previous frame signal using said previous frame signaling information, if  
20      determined that said previous frame signal contained said data packet.

1       24. The method as claimed in claim 23, wherein the act of receiving said  
2      current frame signal comprises an act of receiving at least one control  
3      channel signal, at least one supplemental channel signal and at least one  
4      dedicated channel signal substantially during reception of said current  
5      frame.

1       25. The method as claimed in claim 24, wherein the act of receiving at least  
2      one supplemental channel signal comprises an act of receiving a selected  
3      data packet in said at least one supplemental channel signal.

1       26. The method as claimed in claim 24, wherein the act of receiving at least  
2      one dedicated channel signal comprises an act of receiving a signaling  
3      information in said at least one dedicated channel signal.